

WHAT IS CLAIMED IS:

1. An optical fiber connector which is able to hold optical fibers and to arrange ends of the optical fibers, the optical fiber connector
5 comprising:

a connector body, which has a front end portion defining a first opening and comprises supporting means for supporting the optical fibers so that the optical fibers extend in a predefined direction, wherein the supporting means is positioned within a single closed predetermined area in
10 a predefined plane perpendicular to the predefined direction, and the single closed predetermined area has a first area size in the predefined plane; and

15 a protector, which is movably held by the connector body and is provided with a front end surface, wherein: the front end surface is formed with a second opening; the second opening has in the predefined plane a second area size larger than the first area size; and the movable range of the protector is between a first position and a second position, the first position being a position where the protector is arranged in the first opening and is surrounding by the front end portion and where the front end surface of the protector projects from the front end portion through the first opening, the
20 second position being a position where the front end surface of the protector is retracted from the front end portion through the first opening.

25 2. The optical fiber connector according to claim 1, wherein, in a case where the optical fibers are held by the optical fiber connector, the ends of the optical fibers project from the front end portion through the first opening but are positioned rearwardly of the front end surface so as to be protected by the protector.

3. The optical fiber connector according to claim 1, wherein the connector body is provided with an arranging portion for arranging the

optical fibers, which has the supporting means for supporting outer peripheries of the optical fibers.

4. The optical fiber connector according to claim 3, wherein the supporting means comprises a plurality of through holes for supporting the outer peripheries of the optical fibers, respectively, and each of the through holes extends in the predefined direction; and the through holes are arranged within the predetermined area in the predefined plane.

5. The optical fiber connector according to claim 3, wherein the protector is a discrete part from the arranging portion.

10 6. The optical fiber connector according to claim 5, wherein the arranging portion is fixed within the connector body.

7. The optical fiber connector according to claim 5, wherein the protector is made of metal.

15 8. The optical fiber connector according to claim 3, wherein, in a case where the optical fibers are held by the optical fiber connector, the ends of the optical fibers are positioned apart from the arranging portion.

9. The optical fiber connector according to claim 1, wherein the second opening is a single opening which surrounds the predetermined area in the predefined plane.

20 10. The optical fiber connector according to claim 1, wherein the front end surface is always perpendicular to the predefined direction.

11. The optical fiber connector according to claim 1, wherein the protector is able to slide in the predefined direction between the first and the second positions.

25 12. The optical fiber connector according to claim 1, further comprising urging means for urging the protector to be positioned at the first position.

13. The optical fiber connector according to claim 12, wherein the urging means is a plate spring which has two ends, one end of the plate spring being connected to the front end surface, the other end of the plate spring being brought into contact with a front end of the arranging portion so that the plate spring presses the protector forward.

14. The optical fiber connector according to claim 13, wherein the arranging portion is provided with a guide recess, which is formed in the front end of the arranging portion and extends in a direction perpendicular to the predefined direction, and the guide recess serves to guide the end of the plate spring by letting the end slide on the recess.

15. The optical fiber connector according to claim 14, wherein the connector body has a hole which is positioned between the front end portion and the front end of the arranging portion; the protector is provided with a tongue, which has a front free end, and wherein, when the protector is positioned at the first position, the front free end is in contact with the a front wall of the hole to prevent the protector from moving forwards beyond the first position.

16. The optical fiber connector according to one of claims 1 to 9, wherein, in a case where the optical fibers are held by the optical fiber connector, the second opening is never in contact with the optical fibers during the protector is moved between the first and the second positions.